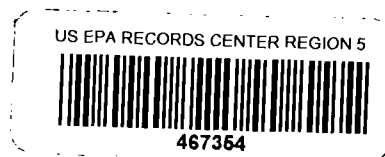


DRAFT  
ON-SCENE COORDINATOR'S REPORT  
CERCLA REMOVAL ACTION  
J.E. BERGER  
DETROIT, WAYNE COUNTY, MICHIGAN  
SITE ID A537  
TDD S05-9610-001  
PAN 6C0101RA

July 30, 1997



Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Emergency Response Branch  
77 West Jackson Boulevard  
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ecology and environment, inc.

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International Specialists in the Environment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

DATE: July 30, 1997

SUBJECT: ON-SCENE COORDINATOR'S REPORT - Removal Action at J.E. Berger, Detroit, Wayne County, Michigan, Site ID# A537

FROM: Rick Karl, Chief  
Emergency Response Branch

TO: Debbie Dietrich, Acting Director  
Emergency Response Division

THRU: William Muno, Division Director  
Division of Superfund

Attached please find the On-Scene Coordinator's (OSC) Report for the removal action conducted at the J.E. Berger (JEB) site located in Detroit, Wayne County, Michigan. The report follows the format outlined in the National Oil and Hazardous Substances Contingency Plan (NCP), Section 300.165. The response was initiated on November 4, 1996, and was completed on April 4, 1997. The OSC for this removal action was David Anderson.

The JEB site posed an immediate threat to public health, welfare, and the environment. The action was taken to mitigate the threats posed by the presence of various materials containing polychlorinated biphenyls (PCBs), as well as mercury, asbestos, paint-related materials, and roofing tar that remained on site after the J.E. Berger Corporation completed a voluntary cleanup in the mid-1980s.

Costs under the control of the OSC are estimated at \$769,526, of which \$634,369 was for the Emergency Response Cleanup Services (ERCS) contractor.

Any indication in this OSC Report of specific costs incurred at the site is only an approximation, subject to audit and final definitization by U.S. EPA. The OSC Report is not a final reconciliation of the costs associated with a particular site.

Portions of the OSC Report appendices may contain confidential business or enforcement-sensitive information and must be reviewed by the Office of Regional Counsel prior to release to the public.

This site is not on the National Priorities List (NPL).

Attachment

cc: K. Mould, U.S. EPA, OERR, 5202-G  
D. Henne, U.S. Dept. of the Interior  
A. Howard, Michigan Dept. of Environmental Quality

bcc: W. Messenger, SE-5J  
ERB Site File, w/OSC Report (5)  
F. Rollins, SE-5J

FEDERAL ON-SCENE COORDINATOR'S REPORT

CERCLA REMOVAL ACTION

J.E. BERGER

DETROIT, WAYNE COUNTY, MICHIGAN

SITE ID# A537

DELIVERY ORDER No. 5001-05-408

Removal Dates: November 4, 1996 - April 4, 1997

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY

Emergency Response Branch  
Division of Superfund  
Waste Management Division  
Region 5

## EXECUTIVE SUMMARY OF THE REMOVAL ACTIVITY

**SITE:** J.E. Berger Site

**LOCATION:** Detroit, Wayne County, Michigan

**PROJECT DATES:** 11/4/96 - 4/4/97

**INCIDENT DESCRIPTION:** The J.E. Berger (JEB) site, which is not listed on the National Priorities List (NPL), was a facility that supplied and rebuilt industrial motors and electrical components. The site, which is located at 5300 Bellevue Street, Detroit, Wayne County, Michigan, is adjacent to the north side of Frederick Street, between Concord Street and Bellevue Street. The site consists of a small portion of interconnecting warehouses that were formerly part of the Packard Automobile Plant. The JEB site is located in an urban residential/industrial area of innercity Detroit. The three-story building housed the J.E. Berger Corporation, which used the building for office and warehouse/operating space. A voluntary exterior cleanup was conducted by J.E. Berger Corporation at the site during the mid-1980s.

During the voluntary cleanup, PCB-contaminated soils and sediments were transported off site for disposal, and the surfaces of several contaminated streets and alleys located around the JEB building were addressed. The Michigan Department of Natural Resources (MDNR) files indicate that the cleanup was successfully completed in 1988.

The removal action was taken to mitigate the threats to human health and the environment posed by the presence of PCB-contaminated capacitors, transformers, light ballasts, flooring (wood block, cement, and tile), soil, sewer sediments, and sewer water; mercury; asbestos; paint-related materials; and roofing tar. The materials addressed by the removal action were abandoned at the facility when J.E. Berger Corporation went out of business. Ownership of the property reverted to the State of Michigan after J.E. Berger Corporation ceased operations and fell into arrears on taxes. No potentially responsible party (PRP) was found financially viable to undertake a cleanup of the site.

**ACTIONS:** The United States Environmental Protection Agency (U.S. EPA) On-Scene Coordinator (OSC) and the Ecology and Environment, Inc. (E & E) Superfund Technical Assessment and Response Team (START) contractor conducted site assessment activities on April 15, April 22, and May 7, 1996. On November 4, 1996, U.S. EPA OSC David Anderson; START; and the Emergency Response Cleanup Services (ERCS) contractor, Smith Technology, mobilized to the JEB site. A command post was established in trailers on the west end of the facility.

On November 4, 1996, the removal action began, and items including nonhazardous debris, PCB-contaminated debris (light ballasts, capacitors, and flooring materials [wood block, tile, and concrete]), paint-related materials (a paint booth dryer and resin/varnish contained in a large tank), mercury, and asbestos, were removed from the facility for disposal.

Beginning November 15, 1996, the floors of the facility were power washed, scrubbed with chemical cleaner, and rinsed in an effort to decontaminate the concrete to PCB levels that comply with federal standards set forth in 40 Code of Federal Regulations (CFR) 761.125. This effort was abandoned in the beginning of December 1996, due to wipe sample analytical results indicating that this method of decontamination was ineffective.

Between January 6 and 8, 1997, Geoprobe sampling operations were conducted to determine the extent of PCB contamination in the soil underlying the facility floors. A second round of Geoprobe operations was conducted on January 29, 1997, to isolate the area of PCB soil contamination identified by analytical sample results from the initial Geoprobe operations. The area of contaminated soil was excavated, and the excavation was backfilled with clean sand on February 13 and 14, 1997.

On January 16, 1997, ERCS began to scarify the concrete floor in a grid pattern to remove PCB-contaminated concrete. Sweeping and vacuuming concrete dust also began, and removal of PCB-contaminated debris continued. Completed grids were covered with Visqueen to protect against contaminated dust settling on the scarified concrete. Beginning January 22, 1997, upon completion of the grid scarification, wipe samples were collected by START to confirm decontamination of the concrete.

On February 14, 1997, U.S. EPA, ERCS, and START demobilized from site for two weeks to await approval of a Ceiling Increase Action Memorandum. On March 3, 1997, U.S. EPA, ERCS, and START remobilized, and scarifying, sweeping, and vacuuming of the warehouse floor continued. On March 10, and 11, 1997, the interconnecting sewer system in the building was jetted with water and vacuumed in response to analytical results indicating PCB-contaminated materials. Between March 17 and 21, 1997, PCB-contaminated oil in five transformers and eight switches, located in the adjacent TORQ building, was drained, and the transformers were flushed with diesel fuel to remove residual oil.

During the removal action, ERCS transported approximately 36 loads (374,665 kilograms) of PCB-contaminated debris; 15 loads (300 cubic yards) of nonhazardous debris; 9,168 gallons of decontamination water; 551 gallons of flammable liquids; 5 cubic yards of asbestos-containing material; 135 gallons of corrosive liquids; 350 gallons of roofing tar; 800 pounds of corrosive solids; 250 gallons of paint-related materials; 80 pounds of

aerosols; 20 pounds of ammonia solutions; 350 pounds of latex paint; 1,753 pounds of fluorescent light ballasts; 809 kilograms of capacitors; 340 pounds of low level mercury debris; 164 pounds of mercury debris and meters/tubes; 3,240 kilograms of non-regulated oil; 360 kilograms of non-DOT-regulated PCB oil; and 1,760 gallons of hazardous waste liquid for disposal. One compressed freon cylinder, one compressed oxygen cylinder, and one compressed propane cylinder were returned to the owner. Seventy-nine 4-feet and one hundred forty-eight 8-feet fluorescent light bulbs were shipped for recycling.

---

David Anderson, OSC  
U.S. EPA Region 5  
Detroit, Michigan

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**Emergency Response Branch  
Division of Superfund, U.S. EPA, Region 5**

**OSC REPORT STANDARD APPENDICES LIST\***

Site Name: J.E. Berger  
          Detroit, Wayne County, Michigan  
Site ID#: A537  
Delivery Order #: 5001-05-408

**1. OPERATIONAL FILES**

- 1-A - Action Memos/Additional Funding Requests/Time Exemptions
- 1-B - Enforcement
- 1-C - Site Safety Plan/Safety Meeting Records/Incident Reports
- 1-D - POLREPs
- 1-E - Daily Work Orders
- 1-F - Site Air Monitoring Logs
- 1-G - Site Entry/Exit Log
- 1-H - Hot Zone Entry/Exit Log
- 1-I - Equipment/Material Log
- 1-J - Equipment Tracking Sheets (WIT Tickets)
- 1-K - Activity Log
- 1-L - Security Log
- 1-M - Site Logs
- 1-N - Site Maps
- 1-O - General Correspondence
- 1-P - Community Relations Plan
- 1-Q - Newspaper Articles
- 1-R - Site Photos/Videos

**2. FINANCIAL FILES**

- 2-A - Delivery Orders/Procurement Requests/Modifications to Contract (ERCS)
- 2-B - Technical Direction Documents/Modifications
- 2-C - Daily Cost Reporting/U.S. EPA Form 1900-55s
- 2-D - Daily Cost Summaries
- 2-E - Incident Obligation Log/U.S. EPA Costs
- 2-F - ERCS Invoices
- 2-G - Cost Projections
- 2-H - START Cost Documentation
- 2-I - Subcontractor Bid Sheets
- 2-J - Receipt Logs
- 2-K - Await Bill Tracking Log
- 2-L - Equipment/Expendables
- 2-M - Equipment/Material Inventory

OSC REPORT STANDARD APPENDICES LIST (CONTINUED)\*

3. TECHNICAL FILES

- 3-A - START Site Assessment/Emergency Action Plans
- 3-B - MDNR File Information
- 3-C - Compatibility Results
- 3-D - Disposal Bids
- 3-E - Waste Profile Sheets
- 3-F - Waste Manifests
- 3-G - Chain of Custody
- 3-H - Analytical Results
- 3-I - Validation Memo
- 3-J - Drum Logs/Tank Logs
- 3-K - ATSDR Risk Assessment Information
- 3-L - Natural Resource Damage Document

\* Portions of these OSC Report Appendices may contain confidential business information or enforcement-sensitive information and must be reviewed by the Office of Regional Counsel prior to release to the public.

\*\* Note that certain files for this site are maintained elsewhere by ERB: these appendices are those files maintained by the OSC during the removal action.

## I. SUMMARY OF EVENTS

### A. SITE CONDITIONS AND BACKGROUND

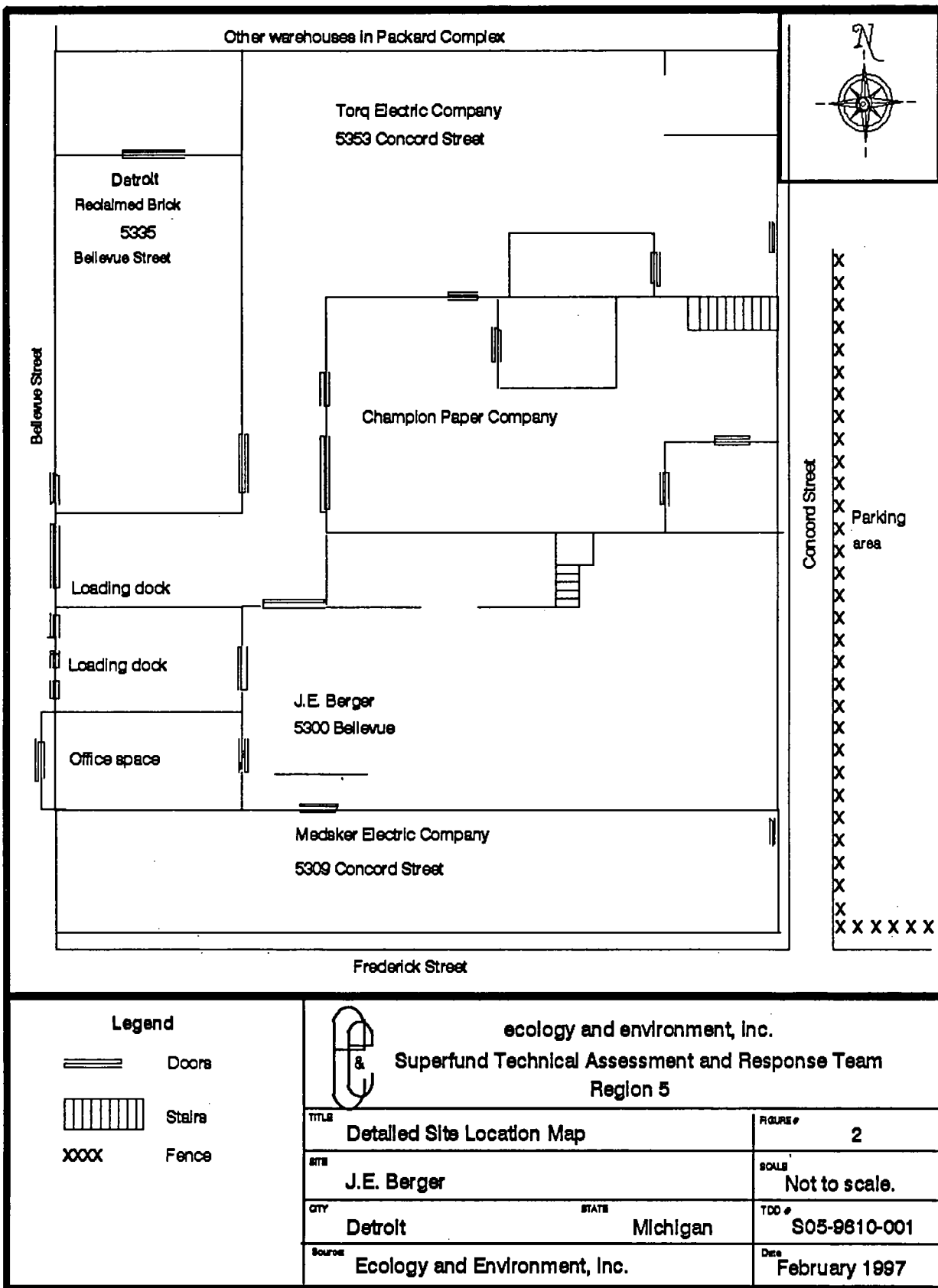
#### 1. Initial Situation

The J.E. Berger (JEB) site, which was not listed on the National Priorities List (NPL), was a facility that supplied and rebuilt industrial motors and electrical components. The site consists of a three-story building that interconnects to other buildings/warehouses in the area. The J.E. Berger Corporation used the building for office and warehouse/operating space.

The JEB site is located in an urban residential/industrial area of innercity Detroit on the corner of Frederick Street and Bellevue Street, at 5300 Bellevue Street, Detroit, Wayne County, Michigan (42°22'26.7" North and 83°1'40.4" West) (Figure 1). The site is bounded to the east by Concord Street, to the north by Torq Electric Company, Champion Paper Company, and Detroit Reclaimed Brick, to the west by Bellevue Street and the Michigan Opera Theater Technical Center, and to the south by Medsker Electric Company (Figure 2). Other industrial and manufacturing facilities and urban residential areas are located across the bordering streets.

A voluntary exterior cleanup was conducted by J.E. Berger Corporation in the mid-1980s and monitored by the Michigan Department of Natural Resources (MDNR). During the voluntary cleanup, polychlorinated biphenyl- (PCB-)contaminated soils and sediments were transported off site for disposal, and surfaces of several contaminated streets and alleys located around the site were addressed. MDNR files indicate that the exterior cleanup was successfully completed in 1988. In March 1987, MDNR suggested to J.E. Berger Corporation that the cleanup activities may need to be extended to include the interior of the building. In response to MDNR's suggestion, J.E. Berger Corporation removed pallets and drums of PCB capacitors and transformers and cleaned the building's loading docks located on Bellevue Street. Ownership of the property reverted to the State of Michigan after J.E. Berger Corporation ceased operations and fell into arrears on taxes.







The JEB site came to the attention of the United States Environmental Protection Agency (U.S. EPA) Response Section 1 through a referral from MDNR and the City of Detroit Brownfields Initiative Group. U.S. EPA was requested to assess the site for PCB contamination and the need for a potential removal action.

The assessment, conducted on April 15 and 22, and May 7, 1996, by a U.S. EPA On-Scene Coordinator (OSC) and the Ecology and Environment, Inc. (E & E) Superfund Technical Assessment and Response Team (START) contractor, revealed the presence of wood block flooring (suspected to be contaminated with PCBs), capacitors marked, "Caution; PCBs," twenty-two 55-gallon steel drums staged on pallets, and one 500-gallon tank on the first floor. Thirteen 55-gallon drums and one 20-gallon drum were found with other debris on the third floor. Based on analytical results, materials on site included ignitable and combustible chemicals; PCB-contaminated capacitors, sludge and fluids; and flammable materials. Wipe samples, collected from walls and floors of J.E. Berger, Champion Paper Company, Detroit Reclaimed Brick, Torq Electric Company, and Medsker Electric Company, indicated that the JEB site was the only facility likely to contain extensive PCB contamination.

The removal action was taken to mitigate the threats to human health, welfare, and the environment posed by the proximity of the site to residential areas, recreational areas, and local businesses. Proximity was a concern due to the presence of PCB-contaminated capacitors, transformers, light ballasts, flooring (wood block, cement, and tile), soil, sewer water, and sewer sediments; mercury; asbestos; paint-related materials; and roofing tar. The materials addressed by the removal action were abandoned by the facility when J.E. Berger Corporation went out of business.

On September 19, 1996, a U.S. EPA Action Memorandum was signed, which approved the removal action at the site.

## **2. Location of Hazardous Substance(s)**

During the 1996 site assessment, PCB-contaminated wood block flooring was observed placed in several piles throughout the building. There was debris

piled on the loading dock on the west end of the building. Twenty-two 55-gallon steel drums containing unknown oily liquids were located on the north side of the first floor. Capacitors marked, "Caution; PCBs," were situated adjacent to the 55-gallon steel drums. A 500-gallon fuel tank was located on the northwest corner of the building near the loading dock entrance. A heavy concentration of oily mud and dirt was apparent on the floors throughout the building. A broken water pipe in the office area allowed water to run constantly into a drain located in the loading dock. Thirteen 55-gallon steel drums, containing unknown oily liquids, and one 20-gallon steel drum were found, along with other debris on the third level of the building.

Samples of oil collected from capacitors, as well as soil and wood block flooring, were all determined to be contaminated with elevated levels of PCBs. Wipe samples collected on the walls and concrete floor also indicated elevated PCB levels. Analytical results from liquid compiled from a number of the drums and containers indicated that the contents were ignitable by virtue of low flash points. The drums and containers were not stored properly. Numerous holes in the building's roof could allow the drums to fill with rain water. The contents of the drums may overflow, enter the drain system within the building, and eventually migrate off site.

### **3. Cause of Release or Discharge**

PCB-contaminated oil, used during rebuilding of large industrial motors and electrical control panels, is suspected to have been spilled and spread throughout the building. Historically, PCB oil was used as a coolant in electrical equipment. Poor housekeeping at the JEB facility allowed PCB fluids to enter the drainage system and soak into the flooring, thus contaminating the facility.

### **4. Efforts to Obtain Response by Responsible Parties**

Information requests (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] 104e requests) were sent to various parties, and no responses that would allow the timely development of liability information were received. Enforcement efforts are ongoing and may

result in the collection of liability information which will support a cost recovery case.

**B. ORGANIZATION OF THE RESPONSE**

An Action Memorandum to initiate a removal action with an authorized expenditure of \$630,270, was approved on September 19, 1996, and a Ceiling Increase Action Memorandum with an authorized expenditure of \$389,610, was approved on February 20, 1997, to allow removal activities to continue. The total expenditure authorized for the site was \$1,019,880. Removal activities were conducted by the U.S. EPA Emergency Response Cleanup Services (ERCS) contractor, Smith Technology Corporation (SMITH), and its subcontractors under Delivery Order 5001-05-408. The removal action was planned for Fall 1996, and consisted of the assessment of chemical hazards on site, securing the site to prevent public access to waste, stabilization of hazardous substances and materials, and removal and disposal of hazardous substances and materials on site by U.S. EPA. The actions described in this report were performed by U.S. EPA under the authority and funding of CERCLA and were initiated on November 4, 1996. Table 1 outlines the agencies or parties which provided response, assessment, or disposal assistance; the action(s) each took; and the role(s) each served during the JEB removal.

**C. INJURY/POSSIBLE INJURY TO NATURAL RESOURCES**

**1. Content and Time of Notice to Natural Resource Trustees**

Trustees received pollution reports (POLREPs) weekly.

**2. Trustee Damage Assessment and Restoration Activities**

Due to the urban site location and conditions, no damage to natural resources has been documented.

**D. CHRONOLOGICAL NARRATIVE OF RESPONSE ACTIONS**

**1. Threat Abatement Actions Taken**

The response at the JEB site was conducted under authority of CERCLA, Section 104(a). The U.S. EPA OSC and START conducted site assessment activities on April 15 and 22, and May 7, 1996. A site reconnaissance to prepare for mobilization was

**Table 1**

**ORGANIZATION OF RESPONSE  
J.E. BERGER  
DETROIT, WAYNE COUNTY, MICHIGAN  
NOVEMBER 4, 1996 - APRIL 4, 1997**

| <b>Agencies or Parties Involved</b>   | <b>Contact</b>  | <b>Description of Participation</b>  |
|---|---|--|
| U.S. EPA Region 5<br>9311 Groh Road<br>Grosse Ile, MI 48138<br>(313) 692-7683   | David Anderson  | Federal OSC responsible for overall response oversight and success. Conducted contractor oversight and cost control. |
| U.S. EPA Region 5<br>Office of Public Affairs<br>77 W. Jackson Blvd.<br>Chicago, Illinois 60604<br>(312) 886-9749                               | Cheryl Allen  | Responsible for community relations.   |
| U.S. EPA Region 5<br>Office of Regional Counsel<br>77 W. Jackson Blvd.<br>Chicago, Illinois 60604   | M. Gonzales   | Provided legal support regarding site activity.  |
| U.S. EPA Region 5<br>Emergency Response Branch<br>77 W. Jackson Blvd.<br>Chicago, Illinois 60604  | Rick Karl,<br>Chief   | Facilitated approval process for Action Memorandum.  |
| City of Detroit<br>Water & Sewerage Department<br>Industrial Waste Control Div.<br>303 S. Livernois<br>Detroit, MI 48209-3070<br>(313) 297-5830 | Yousuf Ahmed,<br>Pretreatment Engineer                                | Provided services and information concerning on-site and off-site sewer system.                                      |
| United States Coast Guard<br>Atlantic Strike Team<br>(USCG AST)<br>5614 Doughboy Loop<br>Fort Dix, NJ 08640<br>(609) 724-0008                   | Scott True,<br>Bernard Tobolski,<br>Scott Stanton, &<br>Daniel Fromer | Assisted OSC with oversight of the contractors and provided health and safety monitoring during site operations.     |

**Table 1 (continued)**

**ORGANIZATION OF RESPONSE  
J.E. BERGER  
DETROIT, WAYNE COUNTY, MICHIGAN  
NOVEMBER 4, 1996 - APRIL 4, 1997**

| <b>Agencies or Parties Involved</b>   | <b>Contact</b>   | <b>Description of Participation</b>   |
|---|--|---|
| Michigan Department of Environmental Quality,<br>Env. Resp. Division<br>200 River Place, Suite 3600<br>Detroit, MI 48207<br>(313) 392-6528                  | Jon Russell,<br>Geologist  | Provided technical information concerning site and previous investigations.   |
| City of Detroit<br>Department of Environmental Affairs<br>660 Woodward<br>1650 First National Building<br>Detroit, MI 48226<br>(313) 237-3090               | Sara D. Lile,<br>Director  | Provided services and information regarding the site.   |
| Ecology & Environment, Inc.,<br>Superfund Technical Assessment and Response Team (START)<br>12251 Universal Dr.<br>Taylor, Michigan 48180<br>(313) 946-0900 | Cedric Gibson &<br>Anne Hellie   | Provided U.S. EPA with technical assistance, administrative support, sampling, photo- and site documentation. Assisted in final report preparation. |
| Smith Technology Corporation<br>13485 Stamford Ct.<br>Livonia, Michigan 48150<br>(313) 513-2511   | Mark Parquette,<br>Mike Hinds, &<br>Royce Franklin;<br>Response Managers | Provided personnel and equipment for removal and conducted site work for U.S. EPA. Arranged for the disposal of site waste.                         |

conducted on October 11, 1996 by the OSC, START, and ERCS.

On November 4, 1996, U.S. EPA OSC David Anderson; START; and the ERCS contractor, SMITH, mobilized to the JEB site. A command post was established in trailers to the west of the facility. Detroit Edison energized a temporary power supply to the site, and the water line to the building was repaired (by an ERCS plumbing subcontractor). Flooring in the hallway of the office area (on the west side of the facility) was removed in order to set up a contamination reduction zone and support zone.

Removal of nonhazardous debris and PCB-contaminated wood block flooring began on November 5, 1996 (Table 2). These two wastestreams were segregated as they were removed from the facility and loaded into rolloff boxes for disposal. On November 8, 1996, miscellaneous small containers, capacitors, and drums were collected from the first floor and staged. The containers, capacitors, and drums were sampled on November 21, 1996, and the contents were hazard categorization tested (hazcatted) on November 23, 1996. The wastestreams were consolidated for shipment and disposal on December 4, 1996.

Between November 9 and 11, 1996, sections of the collapsing roof were removed in order to reduce overhead hazards. Capacitors scattered throughout the building were collected and staged for inventory and removal on November 12, 1996.

Once areas of the concrete floor were free of debris, removal of a top layer of concrete flooring (which had been used to replace wood block) in various sections of the warehouse began on November 14, 1996. This was followed by decontamination of the concrete floor in the facility. On November 15, 1996, ERCS began power washing, triple scrubbing the floor with Citriclean or Pentatone, and then rinsing the area with water. All fluids were collected and containerized for subsequent disposal.

Cleanup of a mercury spill found on the third floor was conducted on November 15 and 16, 1996. Hg Absorb was applied to the mercury to solidify it and allow it to be shoveled and containerized for disposal. Residual mercury on the concrete

Table 2

**PCB ANALYTICAL RESULTS OF VARIOUS SAMPLES  
J.E. BERGER SITE**

| Sample Designation | Aroclor 1242 | Aroclor 1248 | Aroclor 1260         | Total PCB |
|--------------------|--------------|--------------|----------------------|-----------|
| PB-2               | ND           | ND           | 1,900,000<br>μg/kg   | NR        |
| *JEB-1             | ND           | ND           | ND                   | 410 μg    |
| *JEB-2             | ND           | ND           | ND                   | 440 μg    |
| *JEB-3             | ND           | ND           | ND                   | 2,200 μg  |
| +JEB004            | ND           | ND           | ND                   | NR        |
| ^JEB005            | ND           | ND           | 150,000,000<br>μg/kg | NR        |
| *JEB006            | 53 μg/kg     | ND           | 130 μg               | NR        |
| *JEB007            | 210 μg/kg    | ND           | 260 μg               | NR        |
| *JEB008            | ND           | ND           | 34 μg                | NR        |
| +JEB009            | ND           | ND           | 230,000 μg/kg        | NR        |
| *JEB010            | 4.9 μg       | ND           | 6.5 μg               | NR        |
| *JEB011            | ND           | ND           | ND                   | NR        |
| *JEB012            | 5.4 μg       | ND           | 14 μg                | NR        |
| *JEB013            | 22 μg        | ND           | 110 μg               | NR        |
| *JEB014            | 300 μg       | ND           | 140 μg               | NR        |
| +JEB015            | ND           | ND           | 420,000 μg/kg        | NR        |
| *JEB016            | 57 μg        | ND           | 270 μg               | NR        |
| +JEB017            | ND           | ND           | 31,000 μg/kg         | NR        |
| *JEB018            | 6.4 μg       | ND           | 230 μg               | NR        |
| *JEB019            | 17 μg        | ND           | 150 μg               | NR        |
| *JEB020            | 3.3 μg       | ND           | 7.5 μg               | NR        |
| *JEB021            | 15 μg        | ND           | 35 μg                | NR        |
| *JEB022            | 71 μg        | ND           | 190 μg               | NR        |

Table 2

**PCB ANALYTICAL RESULTS OF VARIOUS SAMPLES  
J.E. BERGER SITE**

| Sample Designation | Aroclor 1242 | Aroclor 1248 | Aroclor 1260 | Total PCB |
|--------------------|--------------|--------------|--------------|-----------|
| *CL1A              | ND           | ND           | 1,400 µg     | NR        |
| *CL1B              | ND           | 15 µg        | 37 µg        | NR        |
| *CL1C              | ND           | 12 µg        | 53 µg        | NR        |
| *CL2A              | ND           | 33,000 µg    | ND           | NR        |
| *CL2B              | ND           | 350 µg       | 210 µg       | NR        |
| *CL2C              | ND           | 49 µg        | 96 µg        | NR        |
| *CL3A              | ND           | 30,000 µg    | ND           | NR        |
| *CL3B              | ND           | 70 µg        | 120 µg       | NR        |
| *CL3C              | ND           | 43 µg        | 110 µg       | NR        |
| *CL4A              | ND           | 36 µg        | 14 µg        | NR        |
| *CL4B              | ND           | 24 µg        | 84 µg        | NR        |
| *CL4C              | ND           | 160 µg       | 86 µg        | NR        |
| *SP001             | ND           | ND           | ND           | NR        |
| *SP002             | ND           | 420 µg       | 310 µg       | NR        |
| *SP003             | ND           | 200 µg       | 150 µg       | NR        |
| *SP004             | ND           | 100 µg       | 130 µg       | NR        |
| *WSLD-01           | ND           | 140 µg       | 300 µg       | NR        |
| *WS9D-02           | ND           | 22 µg        | 110 µg       | NR        |
| *WS6A-03           | ND           | 40 µg        | 10 µg        | NR        |
| *WS6C-04           | ND           | 23 µg        | 14 µg        | NR        |
| *WS5D-05           | ND           | ND           | ND           | NR        |
| *WS3B-06           | ND           | 26 µg        | 28 µg        | NR        |
| *WS1A-07           | ND           | 25 µg        | 120 µg       | NR        |
| *WS7B-08           | ND           | 20 µg        | 18 µg        | NR        |
| *WS8C-09           | ND           | 11 µg        | 15 µg        | NR        |



**Table 2**

**PCB ANALYTICAL RESULTS OF VARIOUS SAMPLES  
J.E. BERGER SITE**

| Sample Designation | Aroclor 1242 | Aroclor 1248 | Aroclor 1260 | Total PCB |
|--------------------|--------------|--------------|--------------|-----------|
| *WS10B-10          | ND           | 210 µg       | 740 µg       | NR        |
| #SP-05             | ND           | 15,000 µg/kg | 25,000 µg/kg | NR        |
| #SP-06             | ND           | 14,000 µg/kg | 43,000 µg/kg | NR        |
| #SP-07             | ND           | 8,100 µg/kg  | 51,000 µg/kg | NR        |
| #SP-008            | ND           | 75,000 µg/kg | 14,000 µg/kg | NR        |
| *WSCRZ-1           | ND           | 190 µg       | 440 µg       | NR        |
| *WSCORR-2          | ND           | 14 µg        | 25 µg        | NR        |
| ~SS1               | ND           | 1,900 µg/kg  | 1,200 µg/kg  | NR        |
| ~SS2               | ND           | 210 µg/kg    | 180 µg/kg    | NR        |
| ~SS3               | ND           | ND           | ND           | NR        |
| ~SS4               | ND           | ND           | 440 µg/kg    | NR        |
| ~SS5               | ND           | 2,000 µg/kg  | 2,000 µg/kg  | NR        |

**Key:**

ND = Not detected.

µg = Micrograms.

µg/kg = Micrograms/kilogram.

NR = Test not run.

+ = Wood block sample.

^ = Paint sludge sample.

~ = Soil sample.

\* = Wipe sample.

# = Stockpiled cement sample.

Source: AAC Trinity, 38855 Hills Tech Drive, Suite 550,  
Farmington Hills, MI.

floor was scrubbed with Mercury Vac soap and rinsed with water. Mercury test swabs were used on the concrete to assure all traces of the mercury had been removed. Mercury-contaminated debris was removed on November 20 and 22, 1996.

On November 22, 1996, confirmation clean wipe samples to assure compliance with 40 Code of Federal Regulations (CFR) 761.125 were collected from grids of concrete floor that had been power washed, scrubbed, and rinsed (Table 3 and Figure 3). The wipe samples were sent to AAC Trinity in Farmington Hills, Michigan for PCB analyses.

U.S. EPA, ERCS, and START temporarily demobilized for the Thanksgiving holiday between November 24 and 30, 1996. Confirmation wipe sample results, received on December 1, 1996, indicated that the areas that had been cleaned (power washed, scrubbed, and rinsed) were contaminated above regulatory cleanup levels. At this point, power washing and scrubbing were abandoned as methods of decontaminating the facility floors.

On December 3 and 4, 1996, PCB capacitors were packaged for disposal. Between December 3, and 11, 1996, PCB-containing ballasts and light bulbs from fluorescent light fixtures were removed and packaged. On December 7, 1996, manhole 2 (MH2) was sampled for PCB contamination in the sewer system within the facility. The sample was sent to AAC Trinity for PCB analysis. The inventory of the light fixtures and ballasts began on December 12, 1996. On December 13, 1996, the ERCS crew began removing varnish from a paint booth dryer and a large dip tank and vessel found in the warehouse.

Soil samples were collected from beneath the first floor of the warehouse where PCB contamination was suspected. The samples were shipped for analyses on December 16, 1996, to AAC Trinity in Farmington Hills, Michigan.

ERCS mobilized an asbestos-trained technician to site on December 17, 1996, to remove asbestos pipe insulation on the second floor and floor tile on the first floor of the facility. The asbestos-containing materials were packaged and sent to the BFI facility in Wayne, Michigan, for disposal.

**Table 3**

**PCB ANALYTICAL RESULTS OF CONFIRMATION WIPE SAMPLES  
J.E. BERGER SITE  
(Units =  $\mu\text{g}/\text{cm}^3$  unless otherwise noted)**

| <b>Sample Designation</b> | <b>Aroclor 1242</b> | <b>Aroclor 1248</b> | <b>Aroclor 1254</b> | <b>Aroclor 1260</b> |
|---------------------------|---------------------|---------------------|---------------------|---------------------|
| CWSD1-1                   | ND                  | ND                  | ND                  | 3                   |
| CWSD2-2                   | ND                  | ND                  | ND                  | ND                  |
| CWSD3-3                   | ND                  | 6                   | ND                  | 5                   |
| CWSD11-5                  | ND                  | 2                   | ND                  | 2                   |
| CWS4D-6                   | ND                  | 2                   | ND                  | 6                   |
| CWS5D-7                   | ND                  | ND                  | ND                  | ND                  |
| CWS8D-9                   | ND                  | ND                  | ND                  | 3                   |
| CWSA5-15                  | ND                  | 5                   | ND                  | 4                   |
| CWSA6-16                  | ND                  | ND                  | ND                  | 3                   |
| CWSA7-17                  | ND                  | ND                  | ND                  | 2                   |
| CWSA8-18                  | ND                  | 5                   | ND                  | 4                   |
| CWSA4-21                  | ND                  | ND                  | ND                  | 2                   |
| CWSC1-22                  | ND                  | 5                   | ND                  | 11                  |
| CWSC2-23                  | ND                  | 10                  | ND                  | 20                  |
| CWSC3-24                  | ND                  | 10                  | ND                  | 17                  |
| 2CWSD10                   | 3                   | ND                  | ND                  | ND                  |
| 2CWSD9                    | 3                   | ND                  | ND                  | 10                  |
| 2CWSD7                    | ND                  | ND                  | ND                  | ND                  |
| 2CWSD6                    | ND                  | ND                  | ND                  | ND                  |
| 2CWSA9                    | ND                  | ND                  | ND                  | ND                  |
| 2CWSA10                   | ND                  | ND                  | ND                  | ND                  |
| CWSB5                     | ND                  | ND                  | ND                  | ND                  |
| CWSB7                     | ND                  | ND                  | ND                  | ND                  |
| 2CWSC3                    | ND                  | ND                  | ND                  | ND                  |

| <p align="center"><b>Table 3</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF CONFIRMATION WIPE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g}/\text{cm}^3</math> unless otherwise noted)</b></p> |                               |                     |                     |                               |
|--|-------------------------------|---------------------|---------------------|-------------------------------|
| <b>Sample Designation</b>  | <b>Aroclor 1242</b>           | <b>Aroclor 1248</b> | <b>Aroclor 1254</b> | <b>Aroclor 1260</b>           |
| 2CWSC1   | ND                            | ND                  | ND                  | ND                            |
| 2CWSC2   | ND                            | ND                  | ND                  | ND                            |
| CWSB1  | ND                            | ND                  | ND                  | 3                             |
| CWSB2  | ND                            | ND                  | ND                  | ND                            |
| CWSB3  | ND                            | ND                  | ND                  | ND                            |
| CWSB4  | ND                            | ND                  | ND                  | ND                            |
| CWSC4  | ND                            | ND                  | ND                  | ND                            |
| POLY   | 1,900 $\mu\text{g}/\text{kg}$ | ND                  | ND                  | 5,500 $\mu\text{g}/\text{kg}$ |
| CWSC5  | ND                            | ND                  | ND                  | 2                             |
| CWSC6  | ND                            | ND                  | ND                  | 3                             |
| CWSC7  | ND                            | ND                  | ND                  | ND                            |
| CWSC8  | ND                            | ND                  | ND                  | ND                            |
| CWSC9  | ND                            | ND                  | ND                  | ND                            |
| 2CWSA1   | ND                            | ND                  | ND                  | 10                            |
| 3CWSA2   | ND                            | ND                  | 7.9                 | ND                            |
| 2CWSA3   | ND                            | ND                  | 11                  | ND                            |
| 2CWSB8   | ND                            | ND                  | ND                  | ND                            |
| 2CWSB9   | ND                            | ND                  | ND                  | 3.2                           |
| CWS3FLS  | 6.3                           | ND                  | ND                  | ND                            |
| 2CWSB10  | ND                            | ND                  | ND                  | 2.8                           |
| CWSB11   | ND                            | ND                  | ND                  | ND                            |
| 2CWSC10  | ND                            | ND                  | ND                  | 4.8                           |
| CWSC11   | ND                            | ND                  | ND                  | 4.2                           |
| CWS3FLN  | ND                            | ND                  | ND                  | ND                            |
| CWSDCN   | ND                            | ND                  | ND                  | ND                            |

**Table 3**

**PCB ANALYTICAL RESULTS OF CONFIRMATION WIPE SAMPLES  
J.E. BERGER SITE  
(Units =  $\mu\text{g}/\text{cm}^3$  unless otherwise noted)**

| <b>Sample Designation</b> | <b>Aroclor 1242</b> | <b>Aroclor 1248</b> | <b>Aroclor 1254</b> | <b>Aroclor 1260</b> |
|---------------------------|---------------------|---------------------|---------------------|---------------------|
| CWSLD                     | ND                  | ND                  | ND                  | ND                  |
| CWSLD1                    | ND                  | ND                  | ND                  | 4.7                 |
| CWSLD3                    | ND                  | ND                  | ND                  | 5.3                 |
| 3CWSB6                    | ND                  | ND                  | ND                  | ND                  |
| 2CWSLD2                   | ND                  | ND                  | ND                  | 3.6                 |

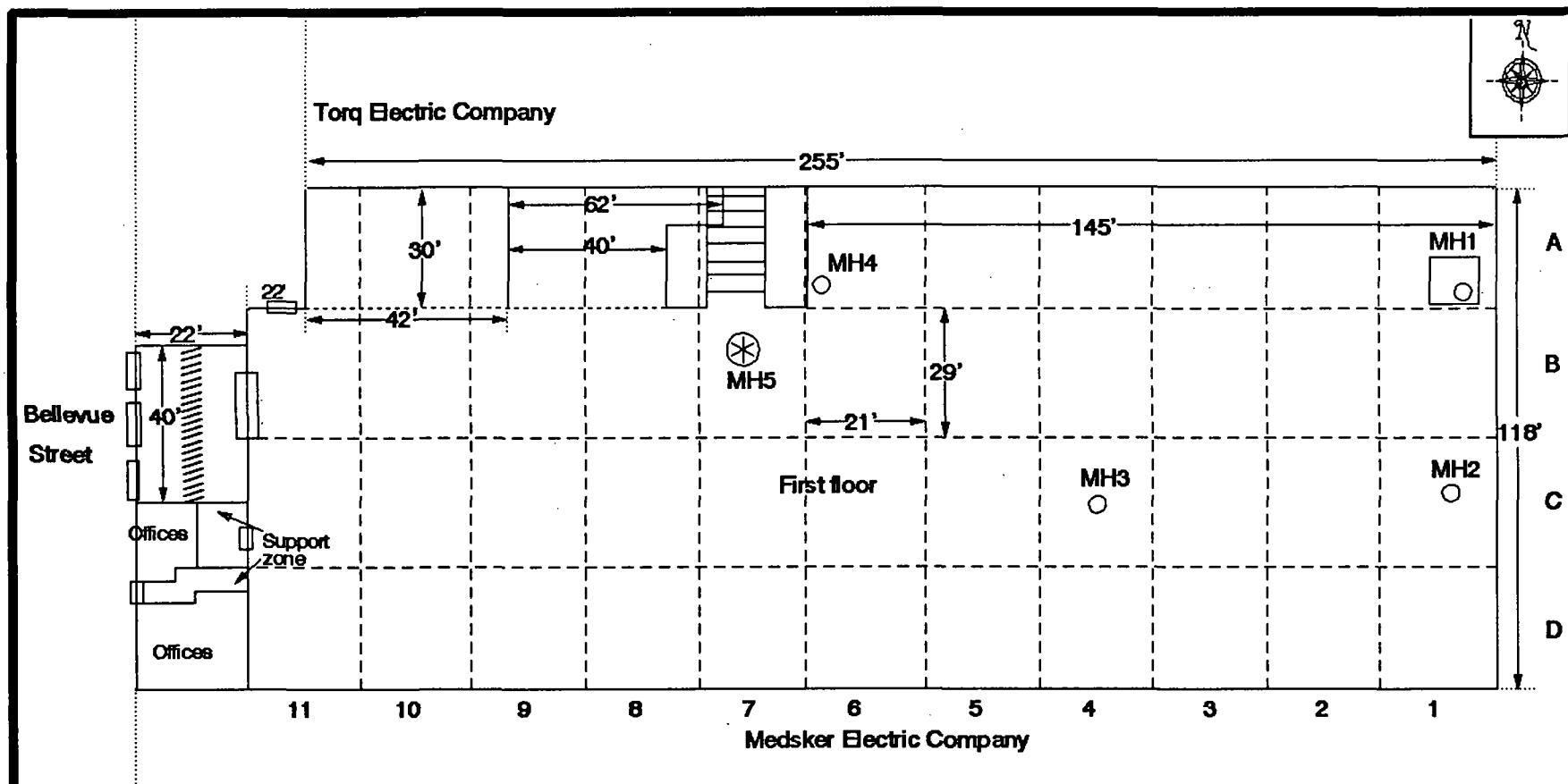
**Key:**

ND = Not detected.

$\mu\text{g}/\text{cm}^3$  = Micrograms per cubic centimeter.

$\mu\text{g}/\text{kg}$  = Micrograms per kilogram.

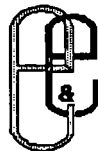
Source: AAC Trinity, 38855 Hills Tech Drive, Suite 550,  
Farmington Hills, MI.



### Legend

|                     |                             |
|---------------------|-----------------------------|
| --- Grid boundaries | ----- Second floor overhang |
| Stairway            | ⊗ Vault                     |
| Door                | □ MH1 drainage area         |
| ○ Manhole           |                             |
| //// Loading dock   |                             |

Source/Date: Ecology and Environment, Inc./  
February 10, 1997



ecology and environment, inc.  
Superfund Technical Assessment And Response Team  
Region 5

|       |                               |          |              |
|-------|-------------------------------|----------|--------------|
| TITLE | First Floor Site Features Map | FIGURE # | 3            |
| SITE  | J. E. Berger                  | SCALE    | Not to scale |
| CITY  | Detroit                       | STATE    | Michigan     |
|       |                               | TDD #    | S05-9610-001 |

On December 19, 1996, flammable liquids from drums were bulked and shipped to the Michigan Recovery Systems facility in Romulus, Michigan, for disposal. Varnish removal was completed, and U.S. EPA, START, and ERCS demobilized between December 19, 1996, and January 6, 1997, for the holiday break.

U.S. EPA, START, and ERCS remobilized on January 6, 1997, and ERCS began cutting up the paint booth dryer and varnish tank. Between January 6 and 8, 1997, Geoprobe sampling operations were conducted to investigate potential PCB contamination in the soil underlying the facility floors (Figure 4). A total of 59 soil samples were collected and shipped to AAC Trinity in Farmington Hills, Michigan, for PCB analyses on January 9, 1997 (Tables 4 and 5).

On January 8, 1997, four drums of PCB capacitors and seven lab pack containers (various wastestreams) were shipped to the Aptus, Inc., facility in Lakeville, Minnesota, for disposal. On January 9, 1997, five drums of PCB ballasts were shipped to the Environmental Recycling facility in Toledo, Ohio, for disposal.

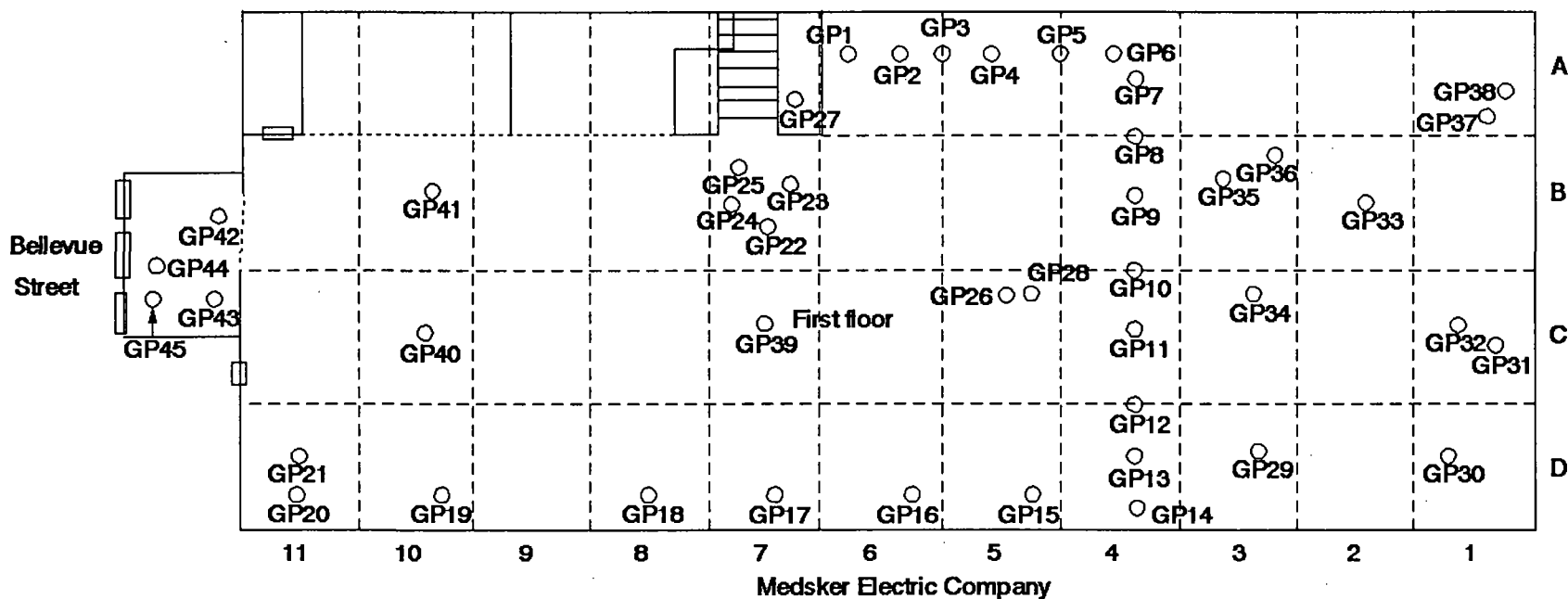
On January 14 and 15, 1997, the solids from the bottom of all on-site sewer manholes, identified as PCB contaminated by analyses of samples collected on December 7, 1996, were removed using a vacuum truck (Table 6). ERCS, observing confined space entry protocols, power washed the manholes.

The mercury debris and meters/tubes were shipped on January 14, 1997, to the Michigan Disposal facility in Belleville, Michigan, for disposal. In addition, on January 15, 1997, three 55-gallon drums containing low-level mercury debris were shipped to the same facility for disposal.

The ERCS crew began scarifying the concrete floor and sweeping and vacuuming PCB-contaminated concrete dust on January 16, 1997. Different types of scarifying equipment used included, a 10-inch and an 8-inch Bartell SPS gas scarifier/planer, a 12-inch 30 horsepower gas planer, and a 10-inch 18 horsepower propane planer. The scarifiers were rented from Hertz and

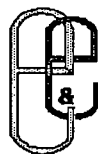


Torq Electric Company



- Legend**
- Grid boundaries
  - ≡ Stairway
  - ▬ Door
  - Geoprobe sample points

Source/Date: Ecology and Environment, Inc./  
February 10, 1997



ecology and environment, inc.  
Superfund Technical Assessment And Response Team  
Region 5

**TITLE**  
Initial Sampling Event Geoprobe Sample Location Map

**FIGURE #**  
4

**SITE**  
J. E. Berger

**SCALE**  
Not to scale

**CITY** Detroit **STATE** Michigan

**TDD #**  
S05-9610-001



| <p align="center"><b>Table 4</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF GEOPROBE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g/kg}</math>)</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| GP1-1   | ND                  | ND                  |
| GP1-2   | ND                  | ND                  |
| GP1-3   | ND                  | ND                  |
| GP2-1   | ND                  | ND                  |
| GP2-2   | ND                  | ND                  |
| GP2-3   | ND                  | ND                  |
| GP3-1   | ND                  | ND                  |
| GP3-2   | ND                  | ND                  |
| GP4-1   | ND                  | ND                  |
| GP4-2   | ND                  | ND                  |
| GP4-3   | ND                  | ND                  |
| GP5-1   | ND                  | ND                  |
| GP5-2   | ND                  | ND                  |
| GP6-1   | ND                  | ND                  |
| GP7-1   | ND                  | ND                  |
| GP7-2   | ND                  | ND                  |
| GP7-3   | ND                  | ND                  |
| GP8-1   | ND                  | ND                  |
| GP9-1   | ND                  | ND                  |
| GP9-2   | ND                  | ND                  |
| GP9-3   | ND                  | ND                  |
| GP10-1  | ND                  | ND                  |
| GP-11-1   | ND                  | ND                  |
| GP11-2  | ND                  | ND                  |
| GP12-1  | ND                  | ND                  |

| <p align="center"><b>Table 4</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF GEOPROBE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g/kg}</math>)</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| GP12-2  | ND                  | ND                  |
| GP13-1  | ND                  | ND                  |
| GP13-2  | ND                  | ND                  |
| GP14-1  | ND                  | ND                  |
| GP15-1  | ND                  | ND                  |
| GP15-2  | ND                  | ND                  |
| GP16-1  | ND                  | ND                  |
| GP17-1  | ND                  | ND                  |
| GP17-2  | ND                  | ND                  |
| GP17-3  | ND                  | ND                  |
| GP18-1  | ND                  | 6,200               |
| GP19-1  | ND                  | ND                  |
| GP19-2  | ND                  | ND                  |
| GP20-1  | ND                  | ND                  |
| GP20-2  | ND                  | ND                  |
| GP20-3  | ND                  | ND                  |
| GP21-1  | ND                  | ND                  |
| GP21-2  | ND                  | ND                  |
| GP21-3  | ND                  | ND                  |
| GP22-1  | ND                  | ND                  |
| GP22-2  | ND                  | ND                  |
| GP22-3  | ND                  | ND                  |
| GP23-1  | ND                  | ND                  |
| GP23-2  | ND                  | ND                  |
| GP23-3  | ND                  | ND                  |

| <p align="center"><b>Table 4</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF GEOPROBE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g/kg}</math>)</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| GP23-4  | ND                  | ND                  |
| GP24-1  | ND                  | ND                  |
| GP24-2  | ND                  | ND                  |
| GP24-3  | ND                  | ND                  |
| GP25-1  | ND                  | ND                  |
| GP25-2  | ND                  | ND                  |
| GP25-3  | ND                  | ND                  |
| GP26-1  | ND                  | ND                  |
| GP26-2  | ND                  | ND                  |
| GP27-1  | ND                  | ND                  |
| GP27-2  | ND                  | ND                  |
| GP27-3  | ND                  | ND                  |
| GP27-4  | ND                  | ND                  |
| GP28-1  | ND                  | ND                  |
| GP28-2  | ND                  | ND                  |
| GP29-1  | ND                  | ND                  |
| GP29-2  | ND                  | ND                  |
| GP29-3  | ND                  | ND                  |
| GP30-1  | ND                  | ND                  |
| GP30-2  | ND                  | ND                  |
| GP31-1  | ND                  | ND                  |
| GP31-2  | ND                  | ND                  |
| GP31-3  | ND                  | ND                  |
| GP32-1  | ND                  | ND                  |
| GP32-2  | ND                  | 300                 |

| <p align="center"><b>Table 4</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF GEOPROBE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g/kg}</math>)</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| GP32-3  | ND                  | ND                  |
| GP33-1  | ND                  | ND                  |
| GP33-2  | ND                  | ND                  |
| GP33-3  | ND                  | ND                  |
| GP34-1  | ND                  | ND                  |
| GP34-2  | ND                  | ND                  |
| GP34-3  | ND                  | ND                  |
| GP35-1  | ND                  | ND                  |
| GP35-2  | ND                  | ND                  |
| GP35-3  | ND                  | ND                  |
| GP36-1  | ND                  | ND                  |
| GP36-2  | ND                  | ND                  |
| GP37-1  | ND                  | 1,100               |
| GP37-2  | 26,000              | 1,400               |
| GP37-3  | ND                  | ND                  |
| GP37-4  | ND                  | ND                  |
| GP38-1  | ND                  | 4,400               |
| GP38-2  | ND                  | 730,000             |
| GP39-1  | ND                  | 9,400               |
| GP40-1  | ND                  | 740                 |
| GP41-1  | ND                  | 340                 |
| GP42-1  | ND                  | 1,200               |
| GP42-2  | ND                  | 670                 |
| GP42-3  | ND                  | 280                 |
| GP43-1  | ND                  | 2,600               |

| <p align="center"><b>Table 4</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF GEOPROBE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g/kg}</math>)</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| GP43-2  | ND                  | 870                 |
| GP43-3  | ND                  | 130                 |
| GP44-1  | ND                  | 1,600               |
| GP45-1  | ND                  | 380                 |
| 2GP1-1  | ND                  | 4,300               |
| 2GP1-2  | 1,200               | 3,500               |
| 2GP2-1  | 270                 | 990                 |
| 2GP2-2  | ND                  | 660                 |
| 2GP3-1  | ND                  | 410                 |
| 2GP3-2  | ND                  | 870                 |
| 2GP3-3  | ND                  | 530                 |
| 2GP3-4  | 3,300               | 1,000               |
| 2GP4-1  | ND                  | 320                 |
| 2GP4-2  | ND                  | 240                 |
| 2GP4-3  | ND                  | 890                 |
| 2GP5-1  | ND                  | 350                 |
| 2GP5-2  | ND                  | 220                 |
| 2GP7-1  | ND                  | 1,600               |
| 2GP7-2  | 1,800               | 390                 |
| 2GP8-1  | ND                  | 320                 |
| 2GP8-2  | 5,700               | 1,100               |
| 2GP9-1  | ND                  | ND                  |
| 2GP9-2  | ND                  | 220                 |
| 2GP10-1   | ND                  | 520                 |
| 2GP10-2   | ND                  | ND                  |

| <p align="center"><b>Table 4</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF GEOPROBE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>(Units = <math>\mu\text{g/kg}</math>)</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| 2GP11-1   | ND                  | 130                 |
| 2GP11-2   | ND                  | 180                 |

Key:

$\mu\text{g/kg}$  = Micrograms/kilogram.

ND = Not detected.

Source: AAC Trinity, 38855 Hills Tech Drive, Suite 550,  
Farmington Hills, MI.

**Table 5**

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE METALS AND VOLATILE  
ORGANIC COMPOUNDS ANALYTICAL RESULTS OF GEOPROBE SAMPLES**

**J.E. BERGER SITE**

**NOVEMBER 4, 1996 - APRIL 4, 1997**

**(TCLP Metals units = mg/L, VOC units = µg/kg)**

| <b>Sample Designation</b> | <b>GP34-1</b> | <b>GP35-1</b> | <b>GP36-1</b> | <b>GP37-1</b> | <b>GP37-3</b> |
|---------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>TCLP Metals</b>        |               |               |               |               |               |
| Arsenic                   | <0.2          | <0.2          | <0.2          | <0.2          | NR            |
| Barium                    | 0.53          | 0.76          | 0.61          | 0.79          | NR            |
| Cadmium                   | <0.01         | <0.01         | 0.022         | 0.042         | NR            |
| Chromium                  | 0.42          | <0.05         | <0.05         | <0.05         | NR            |
| Lead                      | 0.18          | <0.1          | <0.1          | <0.1          | NR            |
| Mercury                   | <0.0002       | <0.0002       | <0.0002       | <0.0002       | NR            |
| Selenium                  | 0.13          | 0.1           | 0.16          | 0.11          | NR            |
| Silver                    | 0.003         | <0.0005       | <0.0005       | <0.0005       | NR            |
| Copper                    | 8.3           | 0.035         | 0.71          | 0.039         | NR            |
| Zinc                      | 0.41          | 0.14          | 0.50          | 0.076         | NR            |
| <b>VOCs</b>               |               |               |               |               |               |
| Chloromethane             | NR            | NR            | NR            | NR            | 1,022         |
| cis-1,2-Dichloroethene    | NR            | NR            | NR            | NR            | 6,800         |
| trans-1,2-Dichloroethene  | NR            | NR            | NR            | NR            | 620           |
| Ethylbenzene              | NR            | NR            | NR            | NR            | 87,000        |
| Naphthalene               | NR            | NR            | NR            | NR            | 450           |
| Tetrachloroethene         | NR            | NR            | NR            | NR            | 10,100        |
| Trichloroethene           | NR            | NR            | NR            | NR            | 4,800         |
| 1,2,4-Trimethylbenzene    | NR            | NR            | NR            | NR            | 800           |

Table 5 (continued)

TOXICITY CHARACTERISTIC LEACHING PROCEDURE METALS AND VOLATILE  
ORGANIC COMPOUNDS ANALYTICAL RESULTS OF GEOPROBE SAMPLES

J.E. BERGER SITE

NOVEMBER 4, 1996 - APRIL 4, 1997

(TCLP Metals units = mg/L, VOC units =  $\mu$ g/kg)

| Sample ID | GP34-1 | GP35-1 | GP36-1 | GP37-1 | GP37-3 |
|-----------|--------|--------|--------|--------|--------|
| o-Xylene  | NR     | NR     | NR     | NR     | 1,700  |
| m-Xylene  | NR     | NR     | NR     | NR     | 18,300 |

Key:

mg/L = Milligrams per liter.

$\mu$ g/kg = Micrograms per kilogram.

NR = Test not run.

Source: AAC Trinity, 38855 Hills Tech Drive, Suite 550,  
Farmington Hills, MI.



| <p align="center"><b>Table 6</b></p> <p align="center"><b>PCB ANALYTICAL RESULTS OF MANHOLE SAMPLES</b></p> <p align="center"><b>J.E. BERGER SITE</b></p> <p align="center"><b>NOVEMBER 4, 1996 - APRIL 4, 1997</b></p> |                     |                     |
|---|---------------------|---------------------|
| <b>Sample Designation</b>   | <b>Aroclor 1248</b> | <b>Aroclor 1260</b> |
| MH02-01   | 6,400 µg/kg         | 43,000 µg/kg        |
| MH02-02   | 5,400 µg/kg         | 87,000 µg/kg        |
| MH06-01   | 6,700 µg/kg         | 34,000 µg/kg        |
| MH1L-02   | 410,000 µg/kg       | 21,000,000 µg/kg    |
| MH1W  | 150 µg/L            | 320 µg/L            |
| MH1S-02   | ND                  | 14,000,000 µg/kg    |
| MH1S-03   | ND                  | 1,100,000 µg/kg     |
| MH4F  | 52,000 µg/kg        | 190,000 µg/kg       |

Key:

µg/L = Micrograms per liter.  
µg/kg = Micrograms per kilogram.  
ND = Not detected.

Source: AAC Trinity, 38855 Hills Tech Drive, Suite 550,  
Farmington Hills, MI.

Hull Brothers. Completed grids were covered with Visqueen to protect against contaminated dust settling on the planed concrete. Upon completion of scarifying, wipe samples were collected by START to confirm decontamination of the concrete. Grids were scarified and sampled as needed until results met federal cleanup standards. On January 29, 1997, completed grids were covered with Visqueen to prevent contamination from planing dust.

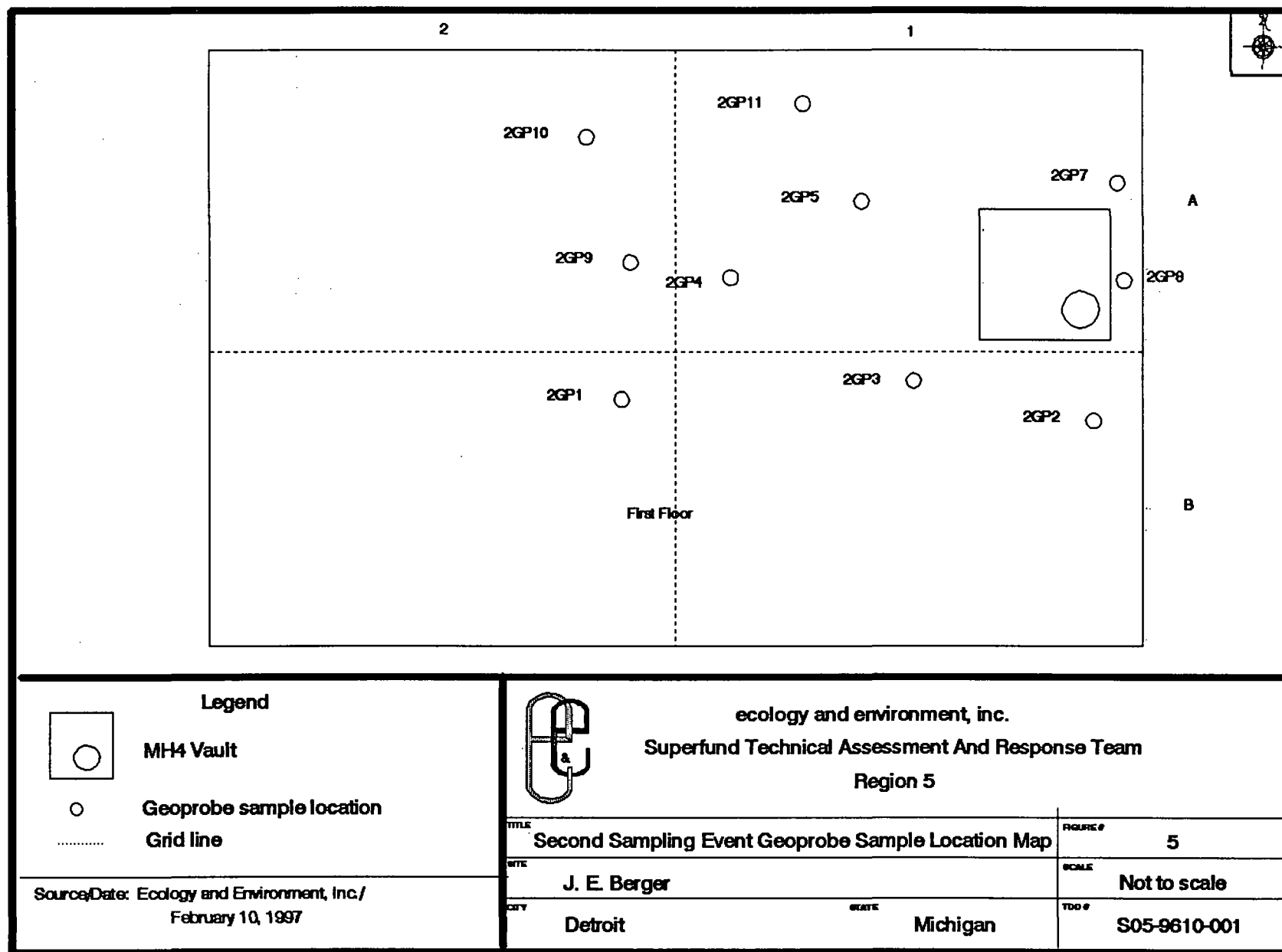
The ERCS crew finished cutting the paint booth dryer and varnish tank on January 19, 1997. The top layer of concrete was removed from the floor and sent on January 20, 1997, to the Chemical Waste Management (CWM) landfill in Model City, New York, for disposal.

A second Geoprobe sampling event was conducted on January 29, 1997, to isolate the area of PCB soil contamination identified in initial Geoprobe operations (Figure 5). On February 5 and 6, 1997, concrete around the area of contamination, identified by the second Geoprobe sampling activity (manhole 4 [MH4]), was cut to delineate planned excavation activities. The excavation was conducted by a plumbing subcontractor procured by ERCS. This contractor was selected in the event there was work to be done in the manholes and sewer. The contaminated soil was removed, and the excavation was backfilled with clean sand on February 13 and 14, 1997 (Table 7).

During January 1997, excessive amounts of rain and snow melt water entering the facility via holes in the roof, caused ERCS to spend a great deal of time vacuuming standing water. A polyethylene (poly) tent was set up on February 4, 1997, under the open section of the roof to prevent rain/snow melt water from reaching the floor of the facility and becoming PCB-contaminated with cement dust.

On February 14, 1997, U.S. EPA, START, and ERCS demobilized from the site for two weeks to await approval of the Ceiling Increase Action Memorandum for ERCS.

U.S. EPA, START, and ERCS returned to the site on March 3, 1997, and scarifying, sweeping, and vacuuming activities on the warehouse floor



| <b>Table 7</b><br><b>PCB ANALYTICAL RESULTS OF EXCAVATION SAMPLES</b><br><b>J.E. BERGER SITE</b><br><b>(Units = <math>\mu\text{g/kg}</math>)</b> |                     |                     |
|--|---------------------|---------------------|
| <b>Sample ID</b>   | <b>Aroclor 1242</b> | <b>Aroclor 1260</b> |
| PN-1   | ND                  | 38,000              |
| PS-2   | ND                  | 1,300               |
| PB-3   | ND                  | 75,000              |
| PV-4   | 270,000             | ND                  |

Key:

$\mu\text{g/kg}$  = Micrograms per kilogram.  
 ND = Not detected.

Source: AAC Trinity, 38855 Hills Tech Drive, Suite 550,  
 Farmington Hills, MI.

continued. On March 10 and 11, 1997, the interconnecting sewer system in the building was washed and vacuumed because sewer water analytical results indicated solid waste floating on water in the sewers was contaminated with PCBs. Approximately 255 feet of sewer, connecting to four manholes, was washed and 900 gallons of water were collected in a poly tank for subsequent sampling and disposal.

Tile covering the concrete floor in the eastern room on the second floor was removed on March 11 and 12, 1997, because previous wipe sample results indicated PCB concentrations above federal cleanup standards (Figure 6).

Between March 17 and 21, 1997, PCB-contaminated oil in five transformers and eight switches, located in the adjacent Torq building, was drained, and the transformers were flushed with diesel fuel to remove residual oil. The PCB-contaminated oil and diesel fuel were shipped to the S.D. Myers, Inc., facility in Tallmadge, Ohio, for disposal.

A new decontamination area was set up on March 19, 1997, so that underlying floors of the original area could be scarified (Figure 7). On March 24, 1997, poly, covering decontaminated grids, was removed and placed in a nonhazardous rolloff box for disposal. Prior to disposal, a representative sample of the poly was collected and sent for analyses. Results indicated PCB concentrations on the poly to be below regulatory levels as defined in 40 CFR 761.125. The poly was disposed as a nonhazardous material. Removal of the original decontamination area was completed on March 28, 1997.

An area of stained concrete floor in the warehouse was chipped and sent for disposal on March 31, 1997. On April 1, 1997, scarifying was completed. Final analytical results indicating successful decontamination of the floors were received on April 3, 1997. Water from the sewer cleaning was pumped into a tanker from the poly tank for disposal at the Dynecol, Inc., facility in Detroit, Michigan, on April 3, 1997. Sludge was solidified and placed in a rolloff box for disposal. The poly tank was cut into pieces for disposal. All tasks were completed by April 3, 1997.



Second floor

Second floor



Third floor

Third floor

Third floor

First Floor

## Legend

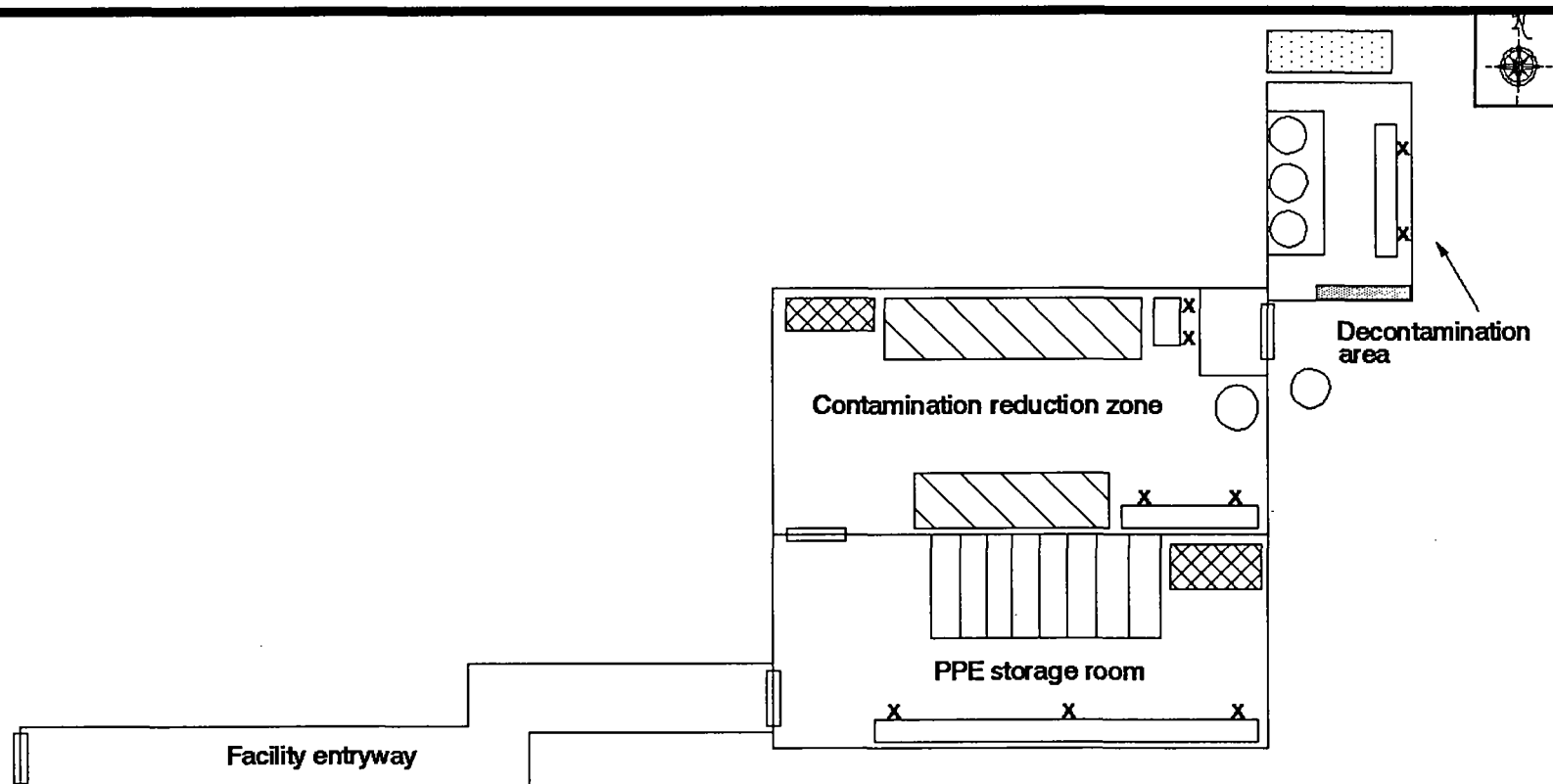
- - - Stud wall  
 - - - Stairway  
 Third floor opening  
 Door

Source/Date: Ecology & Environment, Inc./  
February 10, 1997



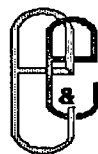
**ecology and environment, inc.**  
**Superfund Technical Assessment And Response Team**  
**Region 5**

|       |  |          |              |
|-------|--|----------|--------------|
| TITLE | Second and Third Floor Site Features Map | FIGURE # | 6            |
| SITE  | J.E. Berger                              | SCALE    | Not to scale |
| CITY  | Detroit                                  | STATE    | Michigan     |
|       |  | TDD #    | S05-9610-001 |



| Legend |                    |
|--------|--------------------|
|        | Stairway           |
|        | Door               |
|        | Garbage can        |
|        | Bench              |
|        | Boot wash          |
|        | Work boot stand    |
|        | Tool storage table |
|        | Table              |
|        | Shelves            |

Source/Date: Ecology and Environment, Inc./  
May 1, 1997



ecology and environment, inc.  
Superfund Technical Assessment And Response Team  
Region 5

|       |                                   |          |              |
|-------|-----------------------------------|----------|--------------|
| TITLE | Original Decontamination Area Map | FIGURE # | 7            |
| SITE  | J. E. Berger                      | SCALE    | Not to scale |
| CITY  | Detroit                           | STATE    | Michigan     |
|       |                                   | TDD #    | S05-9610-001 |

On April 4, 1997, ERCS secured the site by boarding up some entrances and locking others. Final demobilization of equipment and personnel was completed on April 4, 1997.

**2. Treatment, Disposal, Alternative Technology Approaches Pursued**

Cleanup criteria for PCBs at the site were below 10 micrograms per 100 cubic centimeters ( $\mu\text{g}/100\text{ cm}^3$ ) for wipe samples and below 50  $\mu\text{g}/100\text{ cm}^3$  for soil samples. One exception to the cleanup criteria was the analytical result of a soil sample collected from the bottom of the excavation below Manhole 1 (at a depth of approximately 10 feet). After the excavation had been partially backfilled, the analytical result was received that indicated PCB concentrations at 75 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). The area was judged by the U.S. EPA OSC not to be a threat to the environment based on the depth and coverage of clean soil. The U.S. EPA OSC reviewed the Michigan Department of Environmental Quality (MDEQ) file and deemed exterior sampling unnecessary.

During the removal action, U.S. EPA transported for disposal approximately 36 loads (374,665 kg) of PCB-contaminated debris to the CWM landfill in Model City, New York; 15 loads (300 cubic yards) of nonhazardous debris to the City Disposal Systems facility in Detroit, Michigan; 9,168 gallons of decontamination water to the City Environmental facility in Detroit Michigan; one compressed freon cylinder to Golden Refrigerant, Detroit in Wayne, Michigan; 551 gallons of flammable liquids and 250 gallons of paint-related materials to the Michigan Recovery Systems facility in Romulus, Michigan; 5 yards of asbestos-containing material to the Browning Ferris Industries (BFI) facility in Wayne, Michigan; 135 gallons of corrosive liquids, 800 pounds of corrosive solids, and 350 gallons of roofing tar to the Envotech facility in Belleville, Michigan; 80 pounds of aerosols, 20 pounds of ammonia solutions, and 350 pounds of latex paint to the Environmental Services of America, Inc., facility in South Bend, Indiana; 1,753 pounds of PCB-containing fluorescent light ballasts, seventy-nine 4-foot and one hundred forty-eight 8-foot fluorescent bulbs to the Environmental Recycling facility in Toledo, Ohio, for recycling; 809 kilograms of PCB capacitors to



the Aptus, Inc., facility in Lakeville, Minnesota; 340 pounds of low-level mercury debris to the Michigan Disposal, Inc., facility in Belleville, Michigan; 164 pounds of mercury debris and meters/tubes to the Mercury Refining Company facility in Albany, New York; 3,240 kilograms of nonregulated oil and 360 kilograms of non-Department of Transportation-regulated PCB oil to the S.D. Myers, Inc., facility in Tallmadge, Ohio; and 1,760 gallons of hazardous waste liquid to the Dynecol, Inc., facility in Detroit, Michigan. One compressed oxygen cylinder was picked up by BOC Gases located in Ann Arbor, Michigan, and one compressed oxygen cylinder was retrieved by Smith Welding Supply & Equipment Co., Inc., located in Detroit, Michigan (Table 8).

**3. Public Information and Community Relations Activities**

No formal community relations activities were conducted due to the short-planned duration of the removal and lack of community interest. The original Administrative Record is in the U.S. EPA Records Office in Chicago, Illinois.

**E. RESOURCES COMMITTED**

SMITH was the primary ERCS contractor for the JEB site under Delivery Order number 5001-05-408. ERCS site activities commenced on November 4, 1996, and were completed on April 4, 1997. A summary of the ERCS contractor, START, and U.S. EPA costs are presented in Table 9.

Any indication of specific costs incurred at the site is only an approximation, subject to audit and final definitization by U.S. EPA. The OSC Report is not meant to be a final reconciliation of the costs associated with a particular site.

**II. EFFECTIVENESS OF REMOVAL ACTIONS**

**A. ACTIONS TAKEN BY PRPS**

No viable potentially responsible parties (PRPs) were identified by the Enforcement Team.

Table 8

**WASTE DISPOSAL SUMMARY**  
**J.E. BERGER SITE**  
**NOVEMBER 4, 1996 - APRIL 4, 1997**

| Waste Category                   | Quantity           | Date Shipped | Manifest Number | Disposition | Facility, Location                             |
|----------------------------------|--------------------|--------------|-----------------|-------------|--|
| Polychlorinated biphenyl mixture | 4,899 kg           | 11-7-96      | 8371494         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 10,796 kg          | 11-11-96     | 8724411         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 11,394 kg          | 11-13-96     | 8724429         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 12,247 kg          | 11-14-96     | 8724438         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 15,649 kg          | 11-18-96     | 8724447         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 17,735 kg          | 11-19-96     | 8724456         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 11-19-96     | ---             | Landfill    | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Polychlorinated biphenyl mixture | 8,700 kg           | 11-20-96     | 8724465         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 9,480 kg           | 11-20-96     | 8724474         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 11-20-96     | ---             | Landfill    | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Polychlorinated biphenyl mixture | 7,121 kg           | 11-21-96     | 8724492         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 11-21-96     | ---             | Landfill    | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 11-21-96     | ---             | Landfill    | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 11-22-96     | ---             | Landfill    | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Polychlorinated biphenyl mixture | 4,980 kg           | 11-22-96     | 8724501         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |

Table 8

WASTE DISPOSAL SUMMARY  
J.E. BERGER SITE  
NOVEMBER 4, 1996 - APRIL 4, 1997

| Waste Category                   | Quantity           | Date Shipped | Manifest Number | Disposition | Facility, Location                          |
|----------------------------------|--------------------|--------------|-----------------|-------------|---|
| Nonhazardous debris              | 30 yd <sup>3</sup> | 12-2-96      | ---             | Landfill    | City Disposal Systems, Inc., Detroit, MI    |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 12-3-96      | ---             | Landfill    | City Disposal Systems, Inc., Detroit, MI    |
| Polychlorinated biphenyl mixture | 8,519 kg           | 12-4-96      | 8724519         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 12-4-96      | ---             | Landfill    | City Disposal Systems, Inc., Detroit, MI    |
| Polychlorinated biphenyl mixture | 11,603 kg          | 12-5-96      | 8724528         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 9,988 kg           | 12-6-96      | 8724537         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 12-7-96      | ---             | Landfill    | City Disposal Systems, Inc., Detroit, MI    |
| Polychlorinated biphenyl mixture | 6,169 kg           | 12-9-96      | 8724546         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Nonhazardous debris              | 30 yd <sup>3</sup> | 12-10-96     | ---             | Landfill    | City Disposal Systems, Inc., Detroit, MI    |
| Polychlorinated biphenyl mixture | 12,637 kg          | 12-11-96     | 8724555         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 12,991 kg          | 12-11-96     | 8724564         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 11,000 kg          | 12-12-96     | 8724573         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 11,000 kg          | 12-12-96     | 8724582         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 11,000 kg          | 12-13-96     | 8724591         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 11,000 kg          | 12-13-96     | 8724609         | Landfill    | CWM Chemical Services, Inc., Model City, NY |
| Polychlorinated biphenyl mixture | 11,000 kg          | 12-14-96     | 8787348         | Landfill    | CWM Chemical Services, Inc., Model City, NY |

Table 8

WASTE DISPOSAL SUMMARY  
J.E. BERGER SITE  
NOVEMBER 4, 1996 - APRIL 4, 1997

| Waste Category                   | Quantity          | Date Shipped | Manifest Number | Disposition    | Facility, Location                             |
|----------------------------------|-------------------|--------------|-----------------|----------------|--|
| Polychlorinated biphenyl mixture | 11,000 kg         | 12-17-96     | 8787357         | Landfill       | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 11,413 kg         | 12-17-96     | 8787339         | Landfill       | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 10,206 kg         | 12-18-96     | 8787366         | Landfill       | CWM Chemical Services, Inc.,<br>Model City, NY |
| Polychlorinated biphenyl mixture | 12,138 kg         | 1-6-97       | 8787375         | Landfill       | CWM Chemical Services, Inc.,<br>Model City, NY |
| Fluorescent bulbs                | 79 4'<br>148 8'   | 12-17-96     | 1101            | Recycle        | Environmental Recycling,<br>Toledo, OH         |
| Freon cylinder                   | 17 lbs            | 12-17-96     | 5074            | Recycle        | Golden Refrigerant,<br>Wayne, MI               |
| Flammable liquids                | 501 gal           | 12-19-96     | 4015768         | Fuel blending  | Michigan Recovery Systems,<br>Romulus, MI      |
| Flammable liquids                | 50 gal            | 12-19-96     | 4559553         | Blending       | Michigan Recovery Systems,<br>Romulus, MI      |
| Decontamination water            | 1,000 gal         | 12-13-96     | 4533983         | Treatment      | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Decontamination water            | 1,250 gal         | 12-19-96     | 4480553         | Treatment      | City Disposal Systems, Inc.,<br>Detroit, MI    |
| Asbestos-containing material     | 5 yd <sup>3</sup> | 12-19-96     | 937070          | Treatment      | Browning Ferris Ind.,<br>Wayne, MI             |
| Corrosive liquids                | 135 gal           | 12-19-96     | 4015736         | Neutralization | Envotech, Inc.,<br>Belleville, MI              |
| Corrosive solids                 | 800 lbs           | 12-19-96     | 4015736         | Neutralization | Envotech, Inc.,<br>Belleville, MI              |
| Roofing tar                      | 350 gal           | 12-19-96     | 4015736         | Neutralization | Envotech, Inc.,<br>Belleville, MI              |
| Paint-related material           | 250 gal           | 12-19-96     | 4015736         | Neutralization | Envotech, Inc.,<br>Belleville, MI              |
| Oxygen cylinder                  | 1 cylinder        | 12-11-96     | 719-633-00      | Recycle        | BOC Gases, Ann Arbor, MI                       |

Table 8

WASTE DISPOSAL SUMMARY  
J.E. BERGER SITE  
NOVEMBER 4, 1996 - APRIL 4, 1997

| Waste Category            | Quantity  | Date Shipped | Manifest Number | Disposition  | Facility, Location  |
|---------------------------|-----------|--------------|-----------------|--------------|---|
| Waste aerosols, flammable | 80 lbs    | 1-8-97       | 1111110         | Treatment    | Environmental Services of America-<br>IN, Inc.,<br>South Bend, IN |
| Waste ammonia solutions   | 20 lbs    | 1-8-97       | 1111110         | Treatment    | Environmental Services of America-<br>IN, Inc.,<br>South Bend, IN |
| Latex paint               | 350 lbs   | 1-8-97       | 1111110         | Treatment    | Environmental Services of America-<br>IN, Inc.,<br>South Bend, IN |
| PCB ballasts              | 1,753 lbs | 1-9-97       | JEB33           | Recycling    | Environmental Recycling,<br>Toledo, OH                            |
| PCB capacitors            | 809 kg    | 1-8-97       | 7310712         | Incineration | Aptus, Inc., Lakeville, MN  |
| Mercury tubes/meters      | 125 lbs   | 1-14-97      | 4297356         | Recycling    | Mercury Refining Co<br>26 Railroad Ave.,<br>Albany, NY 12205      |
| Mercury debris            | 39 lbs    | 1-14-97      | 4297356         | Recycling    | Mercury Refining Co<br>26 Railroad Ave.,<br>Albany, NY 12205      |
| Mercury spill debris      | 340 lbs   | 1-15-97      | 4770393         | Recycling    | Michigan Disposal Inc.,<br>Belleville, MI                         |
| Decontamination water     | 644 gal   | 1-17-97      | 448067          | Treatment    | City Environmental, Detroit, MI                                   |
| PCB debris                | 10,000 kg | 1-21-97      | 8787384         | Landfill     | CWM Chemical Services, Inc.,<br>Model City, NY                    |
| PCB debris                | 10,000 kg | 1-23-97      | 8787393         | Landfill     | CWM Chemical Services, Inc.,<br>Model City, NY                    |
| Decontamination water     | 1,110 gal | 1-24-97      | 4480922         | Treatment    | City Environmental,<br>Detroit, MI                                |
| Decontamination water     | 1,386 gal | 2-6-97       | 4480961         | Treatment    | City Environmental,<br>Detroit, MI                                |
| PCB debris                | 10,000 kg | 3-3-97       | 8787402         | Landfill     | CWM Chemical Services, Inc.,<br>Model City, NY                    |
| PCB debris                | 10,000 kg | 3-3-97       | 8787411         | Landfill     | CWM Chemical Services, Inc.,<br>Model City, NY                    |

Table 8

WASTE DISPOSAL SUMMARY  
J.E. BERGER SITE  
NOVEMBER 4, 1996 - APRIL 4, 1997

| Waste Category            | Quantity  | Date Shipped | Manifest Number | Disposition | Facility, Location                             |
|---------------------------|-----------|--------------|-----------------|-------------|--|
| PCB debris                | 10,000 kg | 3-5-97       | 8787429         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| PCB debris                | 10,000 kg | 3-5-97       | 8700066         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| PCB debris                | 10,000 kg | 3-6-97       | 8700075         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| PCB debris                | 10,000 kg | 3-7-97       | 8700084         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Decontamination water     | 1,003 gal | 3-11-97      | 4479268         | Treatment   | City Environmental,<br>Detroit, MI             |
| Decontamination water     | 1,500 gal | 3-14-97      | 4842121         | Treatment   | City Environmental,<br>Detroit, MI             |
| PCB debris                | 10,000 kg | 3-20-97      | 8700093         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Nonregulated oil          | 360 kg    | 3-24-97      | 2945902         | Treatment   | S.D. Meyers, Inc.,<br>Tallmadge, OH            |
| Non-DOT-regulated PCB Oil | 3,240 kg  | 3-24-97      | 2945902         | Treatment   | S.D. Meyers, Inc.,<br>Tallmadge, OH            |
| Hazardous waste liquid    | 1,760 gal | 3-25-97      | 4359188         | Treatment   | Dynecol, Inc.,<br>Detroit, MI                  |
| PCB debris                | 10,000 kg | 3-28-97      | 8700102         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| PCB debris                | 10,000 kg | 4-3-97       | 8700255         | Landfill    | CWM Chemical Services, Inc.,<br>Model City, NY |
| Decontamination water     | 1,275 gal | 4-3-97       | 4612124         | Treatment   | City Environmental,<br>Detroit, MI             |

## Key:

CWM = Chemical Waste Management.

kg = Kilograms.

yd<sup>3</sup> = Cubic yard.

gal = Gallons.

lbs = Pounds.

--- = Not applicable.

' = Foot.

Table 9

REMOVAL PROJECT ESTIMATED TOTAL COSTS  
J.E. BERGER  
DETROIT, WAYNE COUNTY, MICHIGAN

EXTRAMURAL COSTS

|                              |            |
|------------------------------|------------|
| ERCS Contractor - SMITH (1)  | \$ 634,281 |
| START Contractor - E & E (2) | \$ 44,054  |
| USCG AST - (3)               | \$ 29,090  |
| EXTRAMURAL SUBTOTAL          | \$ 707,425 |

INTRAMURAL COSTS

|                               |             |
|-------------------------------|-------------|
| U.S. EPA - Direct Costs (4)   | \$ 19,275   |
| U.S. EPA - Indirect Costs     | \$ 41,763   |
| U.S. EPA - Other              | \$ 0        |
| INTRAMURAL SUBTOTAL           | \$ 61,038   |
| ESTIMATED TOTAL PROJECT COSTS | \$ 768,463  |
| PROJECT CEILING               | \$1,019,880 |

- (1) Source: ERCS Contractor - Smith  
1900-55 dated 4/4/97.
- (2) Source: IOL dated 4/4/97.
- (3) Source: IOL dated 4/4/97.
- (4) Source: IOL dated 4/4/97.  
Direct cost = hours x \$30/hour  
Indirect cost = hours x \$65/hour  
Other = per diem, lodging, and travel expenses.

**B. ACTIONS TAKEN BY STATE AND LOCAL FORCES**

A representative of the MDEQ Emergency Response Division, formerly MDNR, visited the site throughout removal activities. The representative discussed regulations for the State of Michigan and past investigations performed at the JEB site with the U.S. EPA OSC.

The local fire department was notified of site activities and hazards and sent a copy of the emergency contingency plan. The police department was also notified of site activities. The City of Detroit Water and Sewer Department was on site to trace sewer lines running from the building. The water department shut off the water supply to the JEB facility upon completion of site work and demobilization.

**C. ACTIONS TAKEN BY FEDERAL AGENCIES AND SPECIAL TEAMS**

U.S. EPA provided monetary resources, and overall response organization and oversight during removal activities. The United States Coast Guard Atlantic Strike Team assisted U.S. EPA with contractor oversight, health and safety monitoring, and sampling activities, and acted as a federal representative when the U.S. EPA OSC was not present.

**D. ACTIONS TAKEN BY CONTRACTORS, PRIVATE GROUPS, AND VOLUNTEERS**

ERCS Contractor (Smith Technology Corporation): The U.S. EPA ERCS contractor, SMITH, and its subcontractors conducted the removal of hazardous and nonhazardous materials at the JEB site. Subcontractors of ERCS included: Pro-tech (site security); Envirostaff (temporary laborers); City Environmental (disposal of decontamination water); Hi-Po Environmental (transportation of contaminated water); Metropolitan Environmental (transportation of hazardous material rolloff boxes), City Disposal System (transportation and disposal of nonhazardous material rolloff boxes); CWM (disposal of hazardous materials); A & E Plumbing (excavation, plumbing work, and sewer cleaning); S.D. Meyers (transportation and disposal of PCB oil and diesel fuel); Dynecol (transportation and disposal of hazardous decontamination water); and AAA 24-Hour Board Up (boarding entrances to building). ERCS procured subcontract labor and provided the necessary equipment and personnel during the project to complete field operations. The analytical laboratory, AAC Trinity, Farmington Hills, Michigan, was procured by ERCS. ERCS



was also responsible for the preparation of the site safety plan. All health and safety protocols, safety and environmental laws, transportation regulations, and disposal requirements were followed during this removal activity.

START Contractor (Ecology and Environment, Inc.):  
E & E, as the START contractor, provided continuous assistance in documenting on-site activities and costs incurred; conducted contractor oversight (both general and health and safety); air monitoring; and performed site sampling during removal activities.

### III. DIFFICULTIES ENCOUNTERED

#### A. ITEMS THAT AFFECTED THE RESPONSE

##### WEATHER/TEMPERATURE:

Temperatures between 10°F and 25°F and windchills below 0°F caused work to slow throughout January and February of 1997. These low temperatures made equipment operation difficult and required a longer warm-up period in the morning. Large amounts of precipitation accumulated on floors at several different times during the removal. Temperature fluctuations around the freezing point caused precipitation to freeze and thaw and/or refreeze into sheets of ice that slowed work.

##### EQUIPMENT:

During the removal, delays were encountered when equipment broke, and parts were not readily available. Periodically, the scarifiers did not work because of the breakdown of various parts, cold stress on the equipment, and general disfunction. A day was needed to get a repair person on site to remedy the problems with the scarifiers. An additional problem occurred when the scarifying dust mixed with standing water in the facility to produce a thick mud that clogged the teeth on the planers and caused further delays.

##### PERSONNEL:

The ERCS technician turnover rate for the site was high for much of the removal. Employees did arrive on time or at all, and some workers were dismissed from the job because of their performance. Temporary agencies were used to provide personnel staffing, but similar problems were encountered with these personnel.

#### FUNDING:

Partially through the project, the funding for ERCS allotted by the Delivery Order was expended. Removal activities were halted for two weeks until the Ceiling Increase Action Memorandum was approved.

#### OPERATIONS:

The original scrub and wash method of decontaminating the concrete floors was proven by analytical data to be ineffective. This effort was abandoned, and scarifying began. Twenty out of 44 grids (21 feet by 29 feet) required rescarifying after the initial effort to reach regulatory PCB cleanup levels as set forth in 40 CFR 761.125.

#### **IV. RECOMMENDATIONS**

##### **A. MEANS TO PREVENT A RECURRENCE OF THE DISCHARGE OR RELEASE**

Due to the nature of the site, the initial risks have been eliminated. Future dumping on the site or vandalism to the site could occur. All entrances to the JEB facility have been boarded shut, except one loading dock garage door. This door has been padlocked, and a swinging gate that is also padlocked blocks access. These measures were completed to prevent vandalism.

##### **B. MEANS TO IMPROVE RESPONSE ACTIONS**

The original scrub and wash method of decontamination of floors was not determined to be ineffective until a large number of grids had been scrubbed (they were all sampled and sent for analyses at once). Sampling each grid as the scrub and wash was completed may have allowed an earlier conclusion that scrubbing was an ineffective decontamination method.

Larger scarifying equipment could have been used to expedite the time spent planing the floors. This suggestion is subject to equipment availability, which was a problem on site.

##### **C. PROPOSALS FOR CHANGES IN REGULATIONS AND RESPONSE PLANS**

This section is not applicable due to the banning of the use and production of PCBs in the 1980s.